makes it highly improbable that a paper published after Jan. 1, 1836, in this country, could be available for citation in England by Feb. 1, 1836, or shortly afterward.

To summarize: it seems a justifiable assumption that pp. 139–184, at least, had been issued by the end of 1835, and that the remainder, pp. 185–203, appeared in early 1836. It is beyond question that pp. 139–160 were issued by or soon after the middle of 1835. In any case, the date, 1837, usually given in citing species described in this work, is certainly incorrect.

GRAY HERBARIUM.

THE GREAT SMOKIES AND THE BLUE RIDGE.—This is a succeeding volume1 to the "Friendly Mountains" which dealt with the climate, natural history, customs, and scenery of the White, Green, and Adirondack Mountains. Likewise this volume is designed to bring to the general reader a feeling and interest in the southern mountains. Botanically this is accomplished by three chapters contributed by Donald Culross Peattie and a chapter "Through the Year in the Great Smoky Mountains" by the park naturalist, Arthur Stupka. It was my privilege to climb LeConte in 1930 with Sharp, Cain, and Underwood, and to drive up—and especially down—the ramshackle dirt road, which at that time went no farther than Indian Gap. How the highway has changed! A modern concrete road with tunnels and turnouts has sprung up in its place. And in succeeding years I made extensive trips with Jennisonthe last one into the relatively unknown Greenbrier section. So it was especially interesting to have Stupka mention the conspicuous shadbush trees (Amelanchier) which reach an enormous size at the summits of the mountains, occupying an altitudinal range (900-6400 ft.) greater than that of any other tree in the Smokies. Though the Great Smokies have on their summits many trees characteristic of the mountain-tops of New England, something seems strange about the trunk and bark and makes them difficult to recognize. This I believe is due to the unusually moist conditions which are encountered; the upland forests have the wet mossy look of those in Ireland or in parts of the Scandinavian Peninsula rather than of New England. The Great Smokies are not as interesting botanically as the Cumberlands to the westward, but the lesser variety of species is probably compensated by the elaborate display of azaleas and rhododendrons. Perhaps the pall of clouds which hangs over the Smokies for so much of the year tends to discourage the growth of sunloving plants.

There is still much controversy as to the origin of balds, which occur as either grassy or ericaceous formations, and (p. 154) these are mentioned as probably due to evaporation resulting from altitude and exposure to winds. It has always seemed to me—but this is only an opinion—that the great variability in the composition of the rocks from one locality to another, even in the same ridge, may be the thing of fundamental importance.

It is easy to fall into generalizations when the only available sources are none too accurate. The many bad smells (p. 174) attributed to the vegetation of the Galapagos Islands are due—so far as I am aware—to only a single species, Lantana pedunculata, which thrusts the odor of naphthalene into an atmosphere already suffocatingly oppressive. But this is true only along the

<sup>&</sup>lt;sup>1</sup> The Great Smokies and the Blue Ridge. Edited by Roderick Peattie. 384 pp., illustrated. Vanguard Press, N. Y. \$3.75.

coast; as one goes inland into the forest the air is filled with the spicy fragrance of wild heliotrope. On the other hand, the Great Smokies have several plants that are more objectionable than Lantana pedunculata. I need only mention various species of carrion-flower belonging to the genus Smilax, or the purple trillium (T. erectum), which, in Dr. Small's Manual of the Southeastern Flora, is given the name "Stinking-Willie." Thus, on the basis of numbers of offending species, the Galapagos Islands should smell much better

than the Great Smokies, but I doubt if that is actually the case.

The book is written for a popular audience and plant geography is one of the most difficult subjects to handle. On page 178, after discussing several species that have their counterparts in the Appalachians and Eastern Asia, Peattie correctly states that "in vain would you seek them in Europe or the western United States." But he also adds, "The same is true of such familiar wild flowers as jack-in-the-pulpit, Dutchman's-breeches, pipsissewa, wintergreen, shooting star, and many others. It is true too of ferns like our dainty little walking fern, the stately cinnamon fern, our maidenhair and the ostrich fern." Now it happens that all of the plants mentioned in the first sentence, with the exception of the jack-in-the-pulpit, are well-known on the Pacific Coast, and the genera represented by Dutchman's-breeches (Dicentra), wintergreen (Gaultheria), and shooting-star (Dodecatheon) are especially complex in that region. Pipsissewa (Chimaphila umbellata) has always been a well-recognized plant of Europe. As to the ferns, the maidenhair occurs from Alaska to southern California; the ostrich fern was originally described from Europe and is also on the Pacific Coast.

The book has splendid pictures of scenery and people; of these illustrations the pictures of rhododendrons facing page 186 are perhaps the most enticing, if a choice must be made.—Henry K. Svenson, Brooklyn Botanic Garden,

Brooklyn, N. Y.

Does Cnicus benedictus persist in our Flora?—At various times the Blessed Thistle is reported in lists of local plants. It appears somewhat sporadically on rubbish or in cultivated ground but there is real doubt whether in the northeastern quarter of the United States it is persistent. The only New England material I can find is a series of sheets, all made up of fragments of one individual, collected by the late Walter Deane on waste ground in Cambridge, in 1885. That particular spot, long known, as dubbed by Thomas Wentworth Higginson, as the "tin cañon" was an old excavation which received much rubbish from the Harvard Botanic Garden. The plant appeared in some abundance in April, 1938, in a newly seeded clover-field near Petersburg, Virginia. In subsequent years it was not there. Is there evidence of its becoming established with us?—M. L. Fernald.